

ABSTRACT

A catalyst and method for producing hydrocarbons using a catalyst support having an improved hydrothermal stability, such as under Fischer-Tropsch synthesis conditions. The stabilized support is made by a method comprising treating a boehmite material in contact with at least one structural stabilizer. Contacting the boehmite with at least one structural stabilizer can include forming a mixture comprising the boehmite material and at the least one structural stabilizer. The mixture can be a sol or a slurry. The treating preferably includes drying or spray drying the mixture, and calcining in an oxidizing atmosphere to obtain the stabilized support. Preferred structural stabilizers can include an element, such as cobalt, magnesium, zirconium, boron, aluminum, barium, silicon, lanthanum, oxides thereof, or combinations thereof; or can include precipitated oxides, such as a co-precipitated silica-alumina.